

## SAFETY DATA SHEET

### Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name:</b>	<b>INNOVA OXYFLUORFEN 240 EC HERBICIDE</b>
<b>Other Names:</b>	<b>Product code:</b>
<b>Recommended Use:</b>	Herbicide for selective control of certain broadleaf and grass weeds
<b>Company Details:</b>	<b>Syngenta Crop Protection Pty Limited</b> ABN 33 002 933 717
<b>Address:</b>	<b>Level 1, 2-4 Lyonpark Road</b> <b>MACQUARIE PARK NSW 2113</b> <b>AUSTRALIA</b>
<b>Telephone Number:</b>	<b>(02) 8876 8444</b>
<b>Emergency Telephone Number:</b>	<b>24 hours - 1800 033 111</b>

### Section 2: HAZARDS IDENTIFICATION

<b>Hazard Classification:</b>	Classified as hazardous according to the criteria of ASCC
<b>Risk Phrases:</b>	R36/38 Irritating to eyes and skin
<b>Safety Phrases:</b>	S2 Keep out of reach of children S24/25 Avoid contact with skin and eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. S36/37 Wear suitable protective clothing and gloves. S38 In case of insufficient ventilation, wear suitable respiratory equipment.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<b>Chemical Identity of Ingredients</b>	<b>CAS No</b>	<b>Proportion (% w/v)</b>
oxyfluorfen	42874-03-3	22
1-methyl-2-pyrrolidinone		1-10
Hydrocarbon liquid		30-60
Other ingredients determined not to be hazardous	-	1-20

## Section 4: FIRST AID MEASURES

<b>Description of Necessary First Aid Measures:</b>	<p>In case of poisoning by any exposure route get to a doctor or hospital quickly. Phone Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.</p> <p><b>Ingestion:</b> Do not induce vomiting. Seek medical attention.</p> <p><b>Eye contact:</b> Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.</p> <p><b>Skin contact:</b> Take off all contaminated clothing immediately. Wash off immediately with plenty of water. Wash contaminated clothing before re-use.</p> <p><b>Inhalation:</b> Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.</p>
<b>Poisoning Symptoms:</b>	Poisoning symptoms in laboratory animals were non-specific.
<b>Medical Advice:</b>	There is no specific antidote available. Treat symptomatically.

## Section 5: FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	<p><i>Extinguishing media - small fires</i>                  Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. DO NOT use direct jet of water.</p> <p><i>Extinguishing media - large fires</i>                  alcohol-resistant foam or water spray. DO NOT use direct jet of water.</p>
<b>Hazards from Combustion Products:</b>	This product contains combustible organic components that may burn and decompose during a fire producing dense black smoke containing hazardous products of combustion. Combustion products are toxic and /or irritant. Exposure to decomposition products may be a hazard to health.
<b>Special Protective Precautions and Equipment for Fire Fighters:</b>	<p>In the event of fire, wear protective clothing and self-contained breathing apparatus.</p> <p>Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.</p>
<b>Hazchem Code:</b>	-

## Section 6: ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedures:</b>	<p>In case of spillage it is important to take all steps necessary to:</p> <ul style="list-style-type: none"> <li>• Avoid eye and skin contact and inhalation of dust or mist.</li> <li>• Avoid contamination of waterways.</li> </ul>
<b>Methods and Materials for Containment and Clean Up:</b>	<p><i>Procedure for spill:</i></p> <ol style="list-style-type: none"> <li>(1) Keep all bystanders away.</li> <li>(2) Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves.</li> <li>(3) Reposition any leaking containers so as to minimise further leakage.</li> <li>(4) Dam and absorb spill with an absorbent material (e.g. sand, soil, diatomaceous earth or vermiculite).</li> </ol>

	<p>(5) Shovel the absorbed spill into drums.</p> <p>(6) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.</p> <p>Disposal of the absorbed material will depend upon the extent of the spill. Contaminated material must be disposed of in accordance with all local authority requirements.</p> <ul style="list-style-type: none"> <li>• For quantities up to 50 L of product bury in a secure approved landfill site.</li> <li>• For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.</li> </ul> <p><i>Dispose of empty, used containers by:</i></p> <p>(1) Rinse containers before disposal. Add rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.</p> <p>(2) Dispose of rinsed, empty containers at a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.</p>
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**Section 7: HANDLING AND STORAGE**

<b>Precautions for Safe Handling:</b>	<p>Will damage eyes and will irritate the skin. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear:</p> <ul style="list-style-type: none"> <li>• cotton overalls buttoned to the neck and wrist</li> <li>• washable hat</li> <li>• elbow-length butyl rubber gloves</li> <li>• goggles</li> </ul> <p>If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.</p>
<b>Conditions for Safe Storage:</b>	<p>No special storage conditions required.</p> <p>Keep containers tightly closed in a dry, cool and well-ventilated place out of direct sunlight.</p> <p>Keep out of the reach of children.</p> <p>Keep away from food, drink and animal feedstuffs.</p>

**Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS**

<b>National Exposure Standards:</b>	<i>Component</i>	<i>Exposure limit</i>	<i>Value type</i>
	1-methyl-2-pyrrolidinone	103 mg/m <sup>3</sup> (25ppm) 309 mg/m <sup>3</sup> (75ppm)	8 hour TWA STEL
<b>Biological Limit Values:</b>	No biological limit allocated.		
<b>Engineering Controls:</b>	Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Product is used outdoors.		

<b>Personal Protective Equipment:</b>	The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.
<b>Respiratory protection:</b>	No personal respiratory protective equipment normally required.
<b>Eye protection:</b>	The product will damage eyes. When opening the container, preparing spray and using the prepared spray wear goggles.
<b>Hand protection:</b>	Will irritate the skin. When opening the container, preparing spray and using the prepared spray wear elbow-length butyl rubber gloves. Wash hands after use.
<b>Skin and body protection:</b>	Will irritate the skin. When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear brown liquid	<b>Boiling Point:</b>	>200°C
<b>Odour:</b>	Aromatic solvent odour	<b>Melting Point/Range:</b>	Not relevant
<b>pH:</b>	Not available	<b>Solubility (water):</b>	Forms emulsion in water
<b>Vapour Pressure:</b>	Not available	<b>Solubility (other solvents) (at 25°C): (Mandipropamid)</b>	Not available
<b>Vapour Density:</b>	Not available	<b>Density:</b>	1.076 g/cm <sup>3</sup>

<b>Flash Point:</b>	97°C	<b>Explosive Properties:</b>	Not available
<b>Upper and Lower Flammable (Explosive) Limits in Air:</b>	Not relevant	<b>Oxidising Properties:</b>	Not available
<b>Ignition Temperature:</b>	Not available	<b>Combustibility:</b>	C1 combustible liquid
		<b>Corrosiveness:</b>	Not available
		<b>Dust explosion class:</b>	Not relevant. Product is a liquid

## Section 10: STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	None known.
<b>Incompatible Materials:</b>	Incompatible with oxidising agents (eg. hypochlorites, peroxides), acids (eg. sulphuric acid), strong alkalis (eg. hydroxides), heat and ignition sources.
<b>Hazardous Decomposition Products:</b>	Combustion or thermal decomposition will evolve toxic and irritant vapors.
<b>Hazardous Reactions:</b>	None known. Hazardous polymerisation does not occur.

## Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:	
<b>Acute:</b>	<p><b>Oral toxicity:</b> LD<sub>50</sub> Rat &gt; 5000 mg/kg (oxyfluorfen)</p> <p><b>Dermal toxicity:</b> LD<sub>50</sub> Rabbit &gt; 10000 mg/kg (oxyfluorfen)</p> <p><b>Inhalation:</b> LC<sub>50</sub> Rat, 4h &gt; 4.8 mg/L</p> <p><b>Skin irritation:</b> Brief contact may cause severe skin irritation with pain and local redness.</p> <p><b>Eye irritation:</b> May cause moderate eye irritation. May cause slight corneal injury. Vapours may irritate eyes causing mild discomfort and redness.</p> <p><b>Sensitisation:</b> Buehler test, Guinea pig: Not a skin sensitiser</p>
<b>Chronic :</b>	Oxyfluorfen has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, teratogenic or reproductive effects was obtained. Oxyfluorfen has caused tumours in laboratory animals.

## Section 12: ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	<p><b>Toxicity to fish:</b> Highly toxic to aquatic organisms.</p> <p><b>Toxicity to aquatic invertebrates:</b> Highly toxic to aquatic organisms.</p> <p><b>Toxicity to algae:</b> <i>Pseudokirchneriella subcapitata</i> (green algae): EC<sub>50</sub>&gt; 0.0029 mg/L (growth inhibition)  <i>Anabaena flos-aquae</i> (blue-green algae): EC<sub>50</sub>&gt; 0.1 mg/L (growth inhibition)</p>
<b>Persistence and Degradability:</b>	Oxyfluorfen is not persistent in soil. Oxyfluorfen is biodegradable.
<b>Mobility</b>	Oxyfluorfen has low mobility in soil.
<b>Bioaccumulative Potential:</b>	Oxyfluorfen has a moderate potential for bioaccumulation

## Section 13: DISPOSAL CONSIDERATIONS

<b>Disposal Methods and Containers:</b>	<p><b>Product:</b> Where possible recycling is preferred to disposal or incineration. It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.</p> <p><b>Contaminated packaging:</b> Dispose of as unused product.</p>
<b>Special Precautions for Landfill or Incineration:</b>	Not applicable

### Section 14: TRANSPORT INFORMATION

<b>LAND TRANSPORT</b>			
ADG		Not a dangerous good in Australia	
<b>UN Number:</b>	None allocated	<b>Packing Group:</b>	None allocated
<b>UN Proper Shipping Name:</b>	None allocated	<b>Special Precautions for User:</b>	None allocated
<b>Class:</b>	None allocated	<b>Hazchem Code:</b>	None allocated
<b>Subsidiary Risk:</b>	None allocated		

<b>SEA TRANSPORT</b>			
IMDG			
<b>UN Number:</b>	3082	<b>Packing Group:</b>	III
<b>UN Proper Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	<b>Special Precautions for User:</b>	None allocated
<b>Class:</b>	9	<b>Hazchem Code:</b>	2X
<b>Subsidiary Risk:</b>	None allocated	<b>Marine Pollutant:</b>	Yes

<b>AIR TRANSPORT</b>			
ICAO / IATA			
<b>UN Number:</b>	3082	<b>Packing Group:</b>	III
<b>UN Proper Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	<b>Special Precautions for User:</b>	None allocated
<b>Class:</b>	9	<b>Hazchem Code:</b>	2X
<b>Subsidiary Risk:</b>	None allocated		

### Section 15: REGULATORY INFORMATION

<b>APVMA Product Number:</b>	62182
<b>Poisons Schedule (SUSDP):</b>	S5

## Section 16: OTHER INFORMATION

**Date of preparation or last revision:** April 2008

**Source of Data:** The information provided in this SDS is sourced from Syngenta internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

**Note: This product is an agricultural chemical and must, therefore, be used in accordance with the container label directions**

**CONTACT POINT:** Regulatory Affairs Manager, Syngenta Crop Protection Pty Limited  
(02) 8876 8444

**24 HOURS EMERGENCY CONTACT: 1800 033 111**

This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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